About zBoost® from Wi-Ex®

Wi-Ex is the leader in cell phone signal boosters. zBoost® enhances the performance of your cell phone, smartphone, PDA and wireless data card.

Compatibility – Dual Band zBoosts are compatible with all US carriers regardless of technology (Except iDEN, Nextel).

Patent-pending technologies protect the carrier network.
1-year manufacturer warranty – register your product at www.Wi-Ex.com

**zBoost® products have more awards, more sales and more locations –
more than all other signal boosters … COMBINED.**

FCC Information

FCC ID: SO4YX500-CEL : SO4YX510-PCS
: SO4YX500-PCS : SO4YX510
: SO4YX510-CEL

Warning: Changes or modifications to this device not expressly approved by Wi-Ex could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Regulations

Canada IC :5544A-YX500CEL :5544A-YX510PCS
:5544A-YX500PCS :5544A-YX510
:5544A-YX510CEL

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

RF Exposure:
The manufacturer's rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device.

Cet appareillage numérique de la classe [B] répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

Le fabricant nominale de la puissance de sortie de ce matériel est simple transporteur. Pour les situations lorsque plusieurs signaux porteurs sont présents, l'évaluation devrait être réduite de 3,5 dB, en particulier lorsque le signal de sortie est ré-émise et peut provoquer des interférences adjacentes à la bande utilisateurs. Ce pouvoir est de la réduction par le biais de la sortie d'alimentation ou la réduction de gain et non par un atténuateur à la sortie du dispositif.

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Trademarks

Wireless Extenders, Wi-Ex, the Wi-Ex logo, zBoost, the zBoost logo and Extending Cell Zones are registered trademarks of Wireless Extenders, Inc.

Safety and Product Warranty Information

Safety Guidelines

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element (antenna) shall be positioned such that a minimum separation distance of 8 inches (20cm) is maintained between the radiating element and the user and/or general population.

Limited Liability

In no event shall Wireless Extenders be liable for any direct, indirect, special, punitive, incidental, exemplary or consequential damages, or any damages, whether in an action under contract, negligence, or any other theory, arising out of or in connection with the set up of, use of, inability to use, or performance of the information, services, products, and materials available from this manual. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy. Because some jurisdictions do not allow limitations on how long an implied warranty last, or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you.
For full warranty guidelines, see page 19.

Warning

Changes or modifications not expressly approved by Wi-Ex could void the user's authority to operate this equipment and/or void the product warranty.

Read First Before Setting Up Your zBoost®

Before unpacking the contents, verify that your phone operates on the frequency band supported by this product.

- **zBoost® YX500-CEL** will enhance your in-building coverage for local provider networks operating at the 800MHz (Cellular) frequency.
- **zBoost® YX500-PCS** will enhance your in-building coverage for local provider networks operating at the 1900MHz (PCS) frequency.
- **zBoost® YX510-Dual Band** will work for **both** Cellular and PCS frequencies.

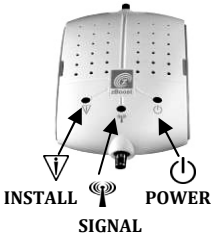
NOTE: The zBoost® YX500/510 Series is not compatible with iDEN, Nextel, SMR or ESMR frequency services.

To verify that your phone will work in conjunction with the model purchased, please follow these four simple steps:

1) Unpack the Base Unit, Base Unit Antenna and power supply.
2) Connect the Base Unit Antenna and the power supply to Base Unit and plug it into an outlet. The green power light (⏻) should illuminate.
3) Bring the unit to an area where there is enough signal to place a call (using an extension cord may be necessary). If the Signal light (📶) begins flashing while placing a call, you may proceed to the next step: *Setting up your zBoost® Signal Booster*. If it flashes red, move your phone further away from the Base Unit and retry.
4) If the Signal light (📶) does not flash green, try placing another call with your cell phone next to the Base Unit antenna. If the Signal light (📶) still does not flash green, your cell phone may be operating on a frequency supported by a different model. Some carriers, such as AT&T and Verizon change frequency depending on location. Go to **www.wirelessadvisor.com**, email Wi-Ex technical support at **support@wi-ex.com**, or call 1-800-871-1612 for further assistance in identifying your frequency.

FIGURE 1: First, unpack the Base Unit, Base Unit Antenna and Power Supply

Base Unit

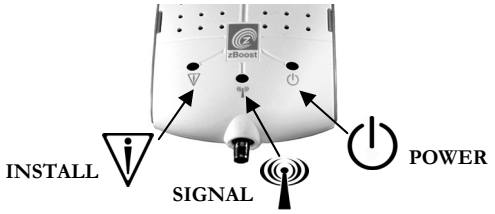


Base Unit Antenna

Power Supply

zBoost® Base Unit Light Indicators

Upon initial power-up of your zBoost®, all lights may flash for approximately 5 seconds. This is a normal condition at power-up. For more detailed information on Base Unit light indicators, see page the *Troubleshooting* section on page 12.



Install Light

The condition of the Install light reflects the quality of the installation. Following initial power-up, a red (solid or blinking) Install light indicates that the positioning of zBoost® component(s) is reducing the performance of your zBoost® system.

1. It may be that you are receiving an acceptable signal boost; however, repositioning the Signal Antenna and/or Base Unit Antenna to maximize separation between the Signal Antenna and the Base Unit will improve your zBoost® performance. See page 4, *Determine the Location of Signal Antenna and Base Unit Antenna* for more information.
2. A red Install light accompanied with a red Signal light may indicate that the signal received from a cell tower is too strong. To reduce the overpowering signal, relocate the Signal Antenna to an area that receives less signal, which may be indoors or a lower elevation.

Signal Light

The Signal light indicates the condition of communication between a wireless device and its cellular network. Following initial power-up, the Signal light will flash green (800MHz band) when a call is in progress or periodically during normal network communication.

A red Install light accompanied with a red Signal light may indicate that the signal received from a cell tower is too strong. To reduce the overpowering signal, relocate the Signal Antenna to an area that receives less signal, which may be indoors or a lower elevation.

Power Light

The Power light indicates operation under normal or abnormal conditions. Following initial power-up, the presence of a solid green Power light indicates normal conditions.

While in use, an alternating orange or solid green Power light (with no other negative indicators by the Signal or Install light) reflects normal conditions.

A flashing green Power light (without any other indicators from the Install or Signal light) means that a software error has been detected. Reset by removing power and reconnecting after 10 seconds.

Other conditions are noted on page 12 in the Troubleshooting section.

Package Contents: zBoost® YX510-PCS-CEL

Before you begin, make sure all of the following parts came with your zBoost® YX510-Dual-Band:

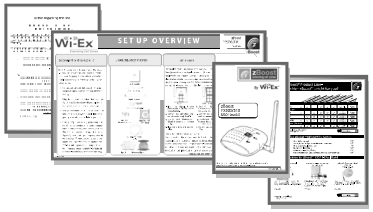
Literature Contents:

① Set Up Tips (single sheet)

② Set Up Overview (poster)

③ zBoost® YX500/510 User Guide (manual)

④ zBoost® Optional Accessories (single sheet)



Product Contents:

⑤ zBoost® Base Unit with attached mounting bracket

⑥ Base Unit Antenna – 0 dBi

⑦ Rubber Feet

⑧ Self-anchoring screws

⑨ Coaxial Cable – 50 ft

⑩ Power Supply

⑪ Signal Antenna

⑫ Signal Antenna mounting hardware

Package Contents: zBoost® YX500-CEL

Before you begin, make sure all of the following parts came with your zBoost® YX500-CEL:

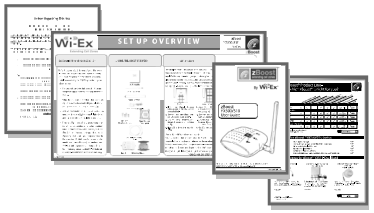
Literature Contents:

① Before Unpacking this Box (single sheet)

② Set Up Overview (poster)

③ zBoost® YX500/510 User Guide (manual)

④ zBoost® Optional Accessories (single sheet)



Product Contents:

⑤ zBoost® Base Unit with attached mounting bracket

⑥ Base Unit Antenna – 0 dBi

⑦ Rubber Feet

⑧ Self-anchoring screws

⑨ Coaxial Cable – 50 ft

⑩ Power Supply

⑪ Signal Antenna

⑫ Signal Antenna mounting hardware

Package Contents: zBoost® YX500-PCS

Before you begin, make sure all of the following parts came with your zBoost® YX500-PCS:

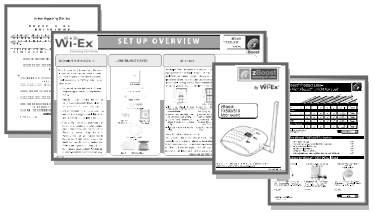
Literature Contents:

① Before Unpacking this Box (single sheet)

② Set Up Overview (poster)

③ zBoost® YX500/510 User Guide (manual)

④ zBoost® Optional Accessories (single sheet)



Product Contents:

⑤ zBoost® Base Unit with attached mounting bracket

⑥ Base Unit Antenna – 0 dBi

⑦ Rubber Feet

⑧ Self-anchoring screws

⑨ Coaxial Cable – 35 ft

⑩ Power Supply

⑪ Signal Antenna

⑫ Signal Antenna mounting hardware

Optional zBoost® Accessories

The following accessories are available to improve signal reception and provide increased coverage in your home or office. Please see our website for more options.

To order, call 1-800-871-1612 or visit, www.Wi-Ex.com for a complete listing

YX510-Dual Band	YX500-CEL	YX500-PCS	Part #	Description
X	X	X	YX012	Outdoor Grounding Kit
X	X		YX022-CEL	Outdoor Omni-Directional Signal Antenna upgrade (6 dBi)
X		X	YX023-PCS	Outdoor Directional Signal Antenna upgrade (13 dBi)
X		X	YX024-PCS	Indoor Directional Base Unit Antenna (7 dBi)
X	X		YX025-CEL	Outdoor Directional Signal Antenna upgrade (7 dBi)
X	X		YX026-CEL	Outdoor Directional Signal Antenna upgrade (11 dBi)
X	X	X	YX027-PCS-CEL	Indoor Dual Band Directional Base Unit Antenna upgrade (6 dBi/CEL, 9 dBi/PCS)
X	X	X	YX029-PCS-CEL	Outdoor Bi-Directional Amplifier System Signal Antenna upgrade (7 dBi/CEL, 13 dBi/PCS)
X	X	X	YX050-PCS-CEL	Indoor Dual Band Omni-Directional Ceiling option for Base Unit Antenna (2 dBi)
X	X	X	YX030-15W	15 ft. Outdoor coax extension cable, low-loss RG-6
X	X	X	YX030-35W	35 ft. Outdoor coax extension cable, low-loss RG-6
X	X	X	YX031-10W	10 ft. Indoor coax extension cable for Base Unit Antenna
X	X	X	YX030-08W	8” white window entry flat cable

Table of Content

About zBoost® from Wi-Ex® i
FCC Information i
Industry Canada Regulations i
Copyright Notice ii
Trademarks ii
Safety and Product Warranty Information ii
Safety Guidelines ii
Limited Liability ii
Read First Before Setting Up Your zBoost® iii
zBoost® Base Unit Light Indicators iv
Package Contents: zBoost® YX510-PCS-CEL v
Package Contents: zBoost® YX500-CEL vi
Package Contents: zBoost® YX500-PCS vii
Optional zBoost® Accessories viii
Table of Content 1
Overview 2
Why Indoor Signals Can Be Weak 2
Preparing to Set Up Your zBoost® Product 3
Tools Needed 3
Check for Signal Strength 3
Determine the Needed Coverage Area 4
Determine the Location of Signal Antenna and Base Unit Antenna 4
Additional Cable Requirements 5
Grounding the Signal Antenna 5
Securing Cable with a Drip Loop 5
Power Requirements 5
Setting Up Your zBoost® Signal Booster 6
Placement of the Signal Antenna 6
Easiest Set-Up 6
Better Performance 7
Best Performance 8
Positioning the Base Unit 10
Confirm That Your zBoost® is Working Properly 10
Wall Mounting the Base Unit 10
Improving Your Coverage Area 11
Troubleshooting Your zBoost® System 12
zBoost® Base Unit Light Indicators 12
Base Unit Indicator Operation 13
YX510-PCS-CEL Technical Specifications 14
YX500-CEL Technical Specifications 14
YX500-PCS Technical Specifications 15
Frequently Asked Questions 16
zBoost® Warranty Information 19

Overview

Thank you for choosing zBoost®. You will now be able to use your cell phone INSIDE your home or office. Gone are the days when you had to go to the window upstairs or walk outside to use your cell phone. Like a skylight that brings sunlight into your home, zBoost® transports and amplifies the outdoor cellular signals into your home or office.

By following the easy instructions in this user guide, you will be Extending Cell Zones™ into your home or office.

Why Indoor Signals Can Be Weak

There are several obstacles that can contribute to the poor reception you receive in your home or office:

1) **Location of the Cell Phone Tower in Relation to Your Home/Office**

   While cell phone providers have tried to place cell phone towers to provide the best overall coverage, local ordinances and terrain features can impose restrictions on where these towers can be placed, limiting the signal strength available at your location.

2) **Obstructions Caused by Buildings, Terrain and Trees**

Cell phone signals can be completely blocked or reflected by buildings, walls, trees, hills and other terrain features resulting in low signal strength.

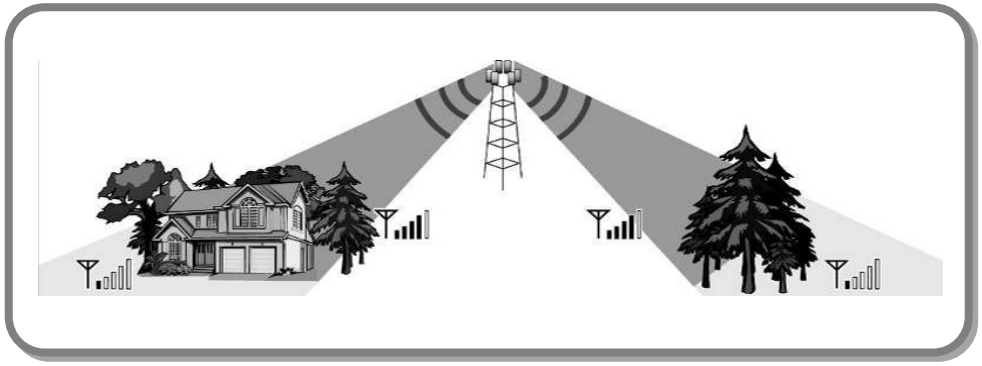


FIGURE 2: Cell Phone Signal Obstructions

Preparing to Set Up Your zBoost® Product

Tools Needed

The following tools are needed to set up zBoost®:

- #2 Philips screwdriver
- Cellular phone operating in the band supported by your zBoost® unit
- Drill (may be required for outdoor or attic antenna placement)

Check for Signal Strength

Before placing a zBoost® in your home, make sure that you can place calls on the outside of your home, in the attic, at roof level or wherever you plan to place the signal antenna. zBoost® can only bring signal into your home when signal reaches the Signal Antenna.

Using your cell phone, place a call from an outdoor location to confirm that enough signal is present to complete the call. If a weak signal is available at ground level, check the signal strength in your attic or at roof level location where the signal will likely be stronger and where the Signal Antenna can be placed for best performance.

If you can reliably make and receive calls outside your home, then zBoost® can bring the signal into your home.

If only one signal bar is displayed on your cell phone outside, indoor coverage will be limited to one small room. We recommend placing the Signal Antenna outside and/or purchasing a Wi-Ex® upgrade Signal Antenna (*see page viii*).

FIGURE 3: Checking Signal Strength

Note

Cell phone signal bars are approximate and vary from phone to phone. The number of bars can fluctuate widely, depending on the location of the phone, the position or angle of the phone, weather, etc. Most cell phone signal meters update every 6 to 10 seconds. An increase of only one bar typically indicates a 4x to 10x signal increase.

THE BEST INDICATOR OF SIGNAL STRENGTH IS THE ABILITY TO RELIABLY PLACE AND RECEIVE CALLS.

Determine the Needed Coverage Area

Identify the location in your home/office where you need signal coverage the most. The zBoost® YX500/510 Series can cover approximately 2500 square feet (coverage varies based on outdoor signal level, building construction, and placement of antennas). Walls, ceilings or floors will reduce the coverage area.

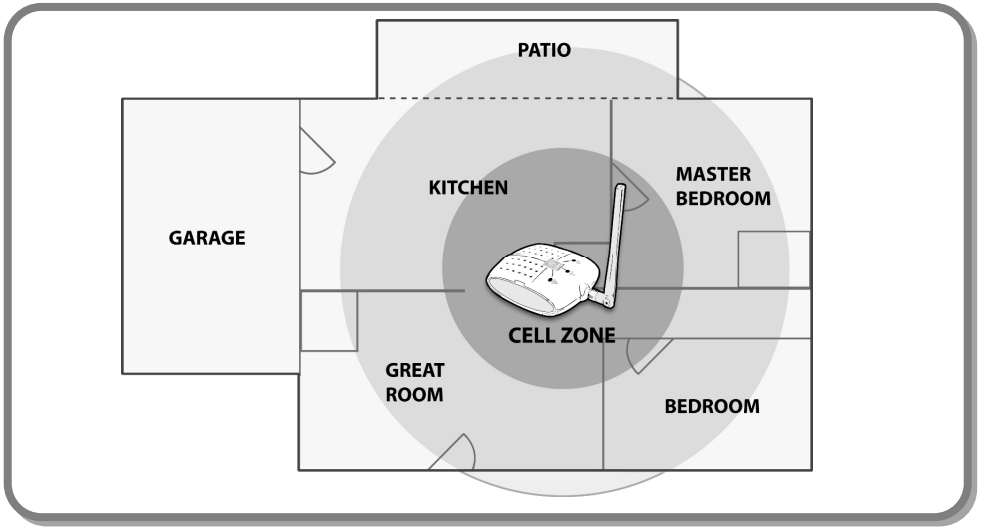


FIGURE 4: zBoost® Base Unit Coverage

Determine the Location of Signal Antenna and Base Unit Antenna

It is recommended that the Signal Antenna and Base Unit Antenna have approximately 15 feet of vertical separation.

If the antennas are too close together, the Install (⍒) light on the Base Unit will be lit or flash red indicating a problem (*See Page 12, Troubleshooting*). To capture the best signal, place the Signal Antenna as high as possible and position it vertically, keeping it at it at least 2 feet away from any metal.

The location of the Signal Antenna should be at least 15 feet higher than the Base Unit Antenna. If this is not possible, maximizing the horizontal separation between the 2 antennas is advised.

See page 6, *Setting Up Your zBoost® Product*, for additional information.

Warning

Avoid placing the Signal Antenna near metal such as wiring, A/C ducts, metal siding, truss plates, etc.
When connecting the cable to the antenna, run the cable straight down from the antenna. Avoid draping the coax near the antenna.

Additional Cable Requirements

If the distance between the Signal Antenna and the Base Unit exceeds 35 feet (YX500-PCS) or 50 feet (YX500-CEL or YX510-Dual Band), you will need to purchase additional coaxial cable for a total coax cable length of 70 feet. You may use RG-6 coaxial cable and F connectors, which are rated for outdoor satellite TV use and can be found at many home improvement and electronic stores.

For the best performance, purchase RG-6 low-loss extension cables from our website or your retailer. The total cable length should not exceed 70 feet unless you also purchase an upgraded signal antenna (*see page viii*). A longer cable is helpful only if it allows you to place the Signal Antenna in a location where you measure stronger signal.

Grounding the Signal Antenna

If you decide to place the Signal Antenna outdoors, it must be properly grounded.

The set up must be in accordance with Article 810 of the National Electric Code (NEC). A listed antenna discharge unit must be provided for the lead-in coaxial cable per NEC article 8.10.20 or the shield of the coaxial cable must be permanently and effectively grounded in accordance with NEC article 8.10.21. Please consult a professional installer or electrician for more information. Additional instructions and hardware are also available in the zBoost® Outdoor Grounding Kit (*see page viii*).

Securing Cable with a Drip Loop

If you place the Signal Antenna outdoors, create a drip loop with the coaxial cable at the point where the cable enters the building through an outside wall. This can be done by twisting and securing the cable into a loop (no less than 4" across) near the entry point. This will help prevent moisture from gathering at entry point and leaking into the building. Consult a professional installer if you need more information. Additional instructions are also available in the zBoost® Outdoor Grounding Kit (*see page viii).*

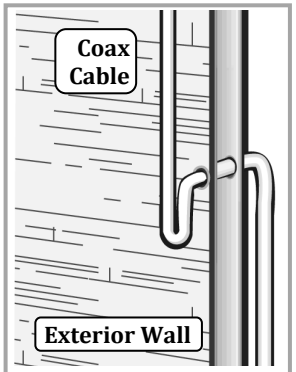


FIGURE 5: Securing Cable with a Drip Loop

Power Requirements

The Base Unit can be plugged into a standard 2 or 3 prong 110 VAC receptacle using the Included power supply. The power supply consumes less than 10W (less than 0.2A).

Warning

The zBoost® YX500/510 Series base unit MUST only be used with the provided power adaptor. Use of other power adaptors will void the warranty and may damage the unit. Use of other equipment is not FCC approved.

Setting Up Your zBoost® Signal Booster

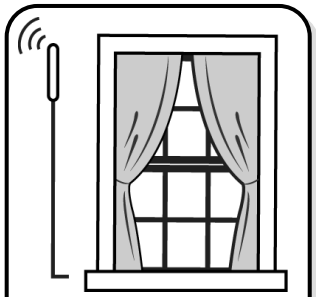
Placement of the Signal Antenna

Choosing the best location for the Signal Antenna provides the best performance and the largest area of improved signal. Determine the location that provides the strongest signal using the signal strength indicator on your cell phone. Find the location that provides the most bars of signal strength and place the Signal Antenna at or near that location. Avoid placing the Signal Antenna near metal such as wiring, A/C ducts, metal siding, truss plates, etc. When connecting the cable to the antenna, run the cable straight down from the antenna. Avoid draping the coax near the antenna.

Choose 1 of the following 3 options for setting up your zBoost® system:

1 **EASIEST:**
Inside, by a window

1. Locate a window where you get signal.
2. Mount the Signal Antenna above the window.
3. Place the Base Unit in desired location – where you want to create a Cell Zone™ (15 feet of vertical separation between the Base Unit and Signal Antenna is recommended).
4. Attach the coaxial cable to the Signal Antenna.
5. Connect the other end of the coaxial cable to the Base Unit.
6. Attach the Base Unit Antenna to the Base Unit and position it vertically.
7. Connect the Power Supply to the Base Unit and plug into a power outlet.



Easiest Set-Up:
Place the Signal Antenna inside, by a window

NOTE: If a red light appears, try further separating the Signal Antenna and Base Unit or see the Troubleshooting section (Page 12).

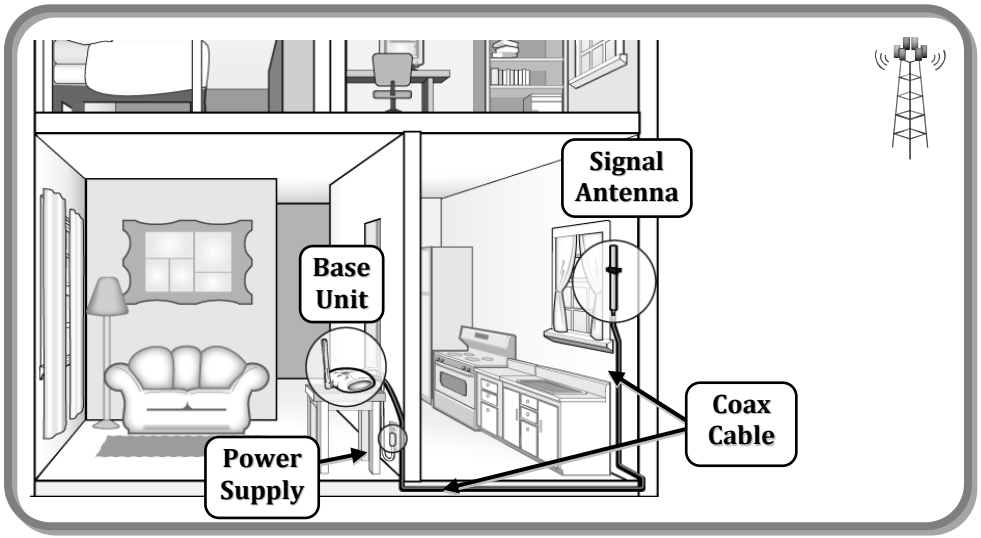
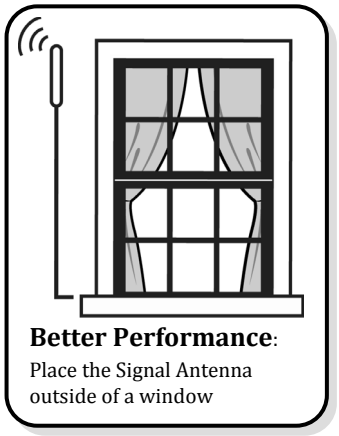


FIGURE 6: Placing the Signal Antenna Inside, Near a Window

❷ BETTER PERFORMANCE: Outside of a window

1. Locate a window where you get signal.
2. Mount the Signal Antenna outside of the window.
3. Place the Base Unit in desired location – where you want to create a Cell Zone™ (15 feet of vertical separation between the Base Unit and Signal Antenna is recommended).
4. Attach the coaxial cable to the Signal Antenna.
5. Run the coaxial cable from the Signal Antenna through the window (an optional window entry kit is available: see page viii) and to the Base Unit.
6. Attach the Base Unit Antenna to the Base Unit and position it vertically.
7. Connect the Power Supply to the Base Unit and plug into a power outlet.



Better Performance:
Place the Signal Antenna outside of a window

NOTE: If a red light appears, try further separating the Signal Antenna and Base Unit or see the Troubleshooting section (Page 12) for further information.

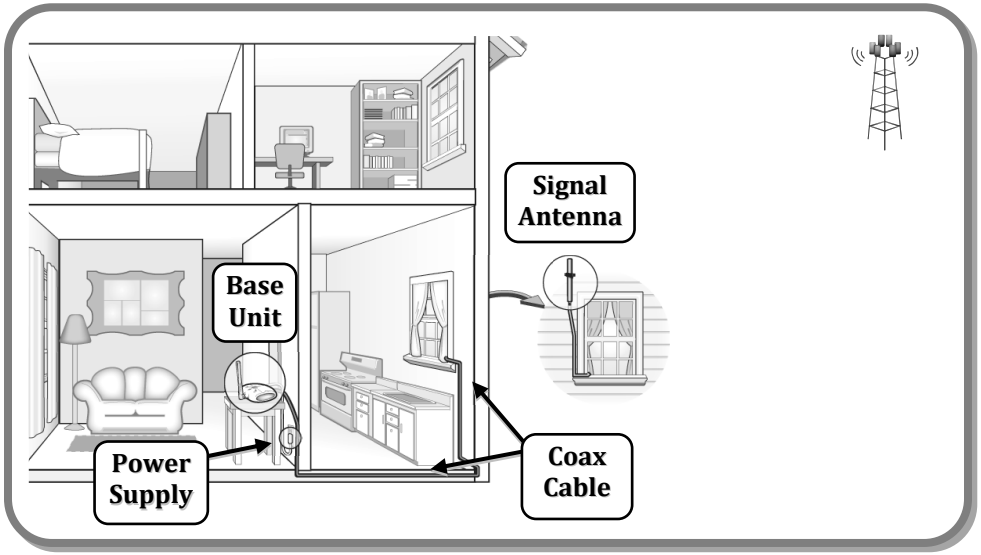
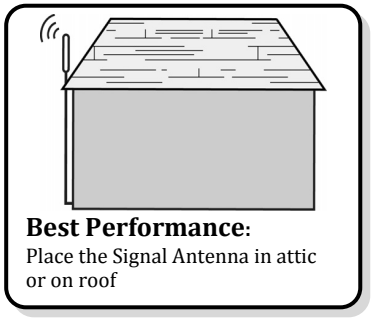


FIGURE 7: Placing the Signal Antenna Outside of a Window

❸ BEST PERFORMANCE: Attic/Outdoor placement

The following instructions are recommended for the best reception:



Best Performance:
Place the Signal Antenna in attic or on roof

1. Using your cell phone as a signal meter, confirm that either your attic or your roof will deliver optimal signal strength to the Signal Antenna. Identify the best location for attachment of the mounting bracket – such as an attic cross or main beam.
2. Secure the mounting bracket at the highest possible point and at least 3 feet (1 meter) away from metal objects such as pipes, metal siding, A/C unit etc).
3. Position the mounting bracket such that the Signal Antenna will be vertical and attach the Signal Antenna (*see figure 9*).
4. Connect the supplied RG6 coaxial cable to the base of the Signal Antenna.
5. Run the coaxial cable along a descending pipe or through a wall that that leads closest to the location of the Base Unit.
   NOTE: Refrain from securing cable or drilling holes until the system has been tested.
6. From the other end, connect the coax cable it to the Base Unit.
7. Connect the Base Unit Antenna to the Base Unit and position it vertically.
8. Connect the Power Supply to the Base Unit and plug it into a power outlet.

NOTE: If a red light appears, try further separating the Signal Antenna and Base Unit or see the Troubleshooting section (*Page 12*) for further information.

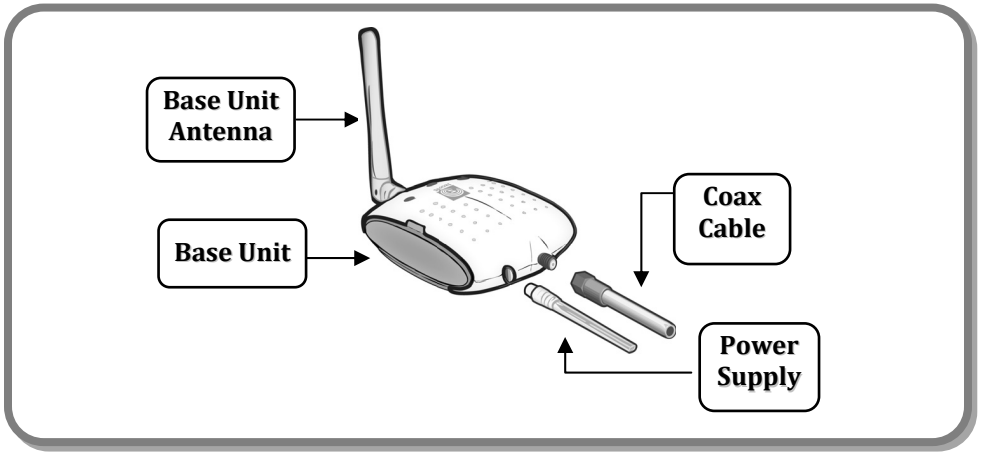


FIGURE 8: Connecting the Base Unit Components

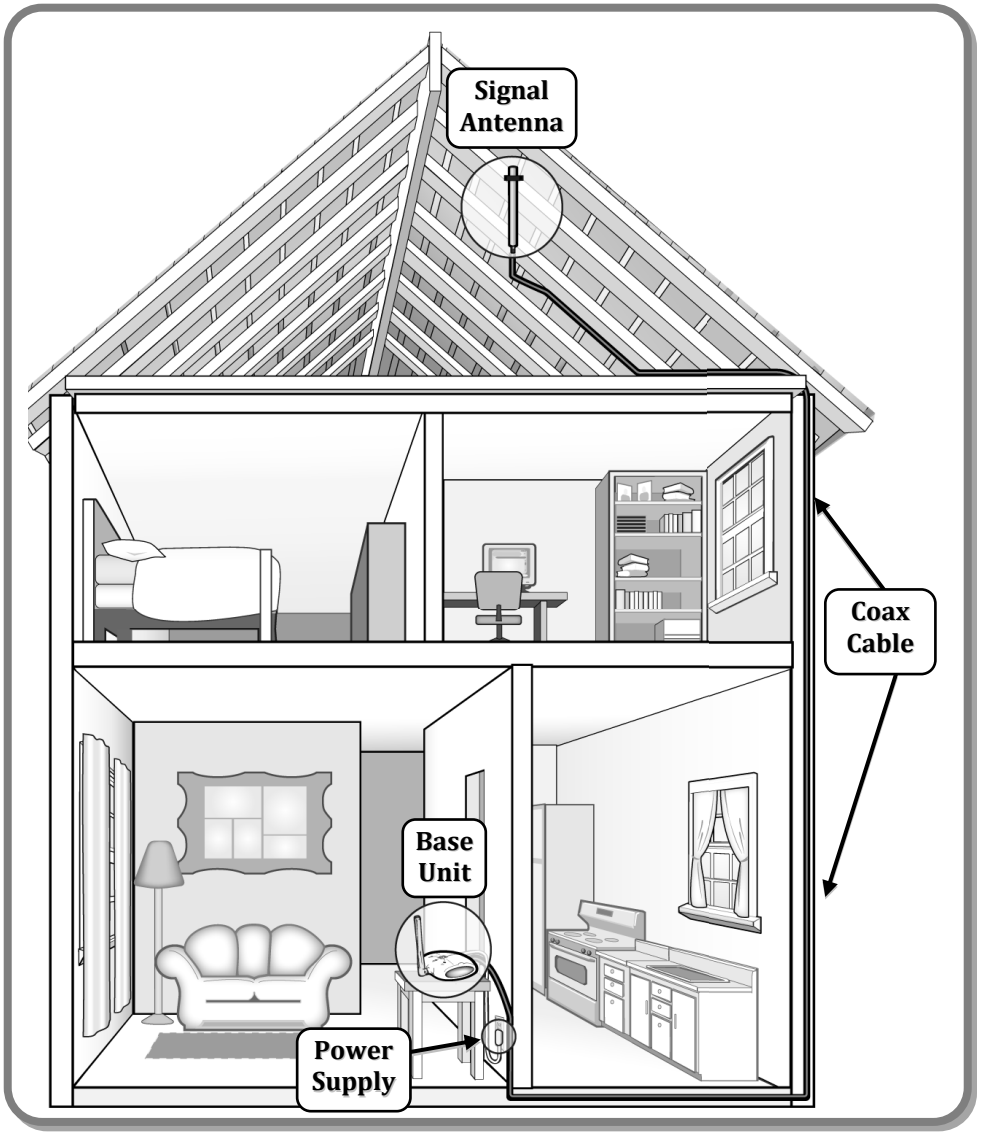


FIGURE 9: Placing the Signal Antenna in the Attic

More on Routing the Coaxial Cable Alongside an Attic Pipe

Locate a pipe that descends from the attic down to the desired location of the Base Unit. Tie a weight to a pull string and lower the weight down alongside the pipe. In the lower room, tie the pull-string onto one end of the cable. From the attic, gently pull up the string until the coaxial cable can be grasped. Connect the coaxial cable to the Signal Antenna.

Positioning the Base Unit

For the widest possible signal area, it is recommended that you position the zBoost® YX500/510 Series Base Unit near the middle of a room or mount it on an interior wall. This Base Unit uses an omni-directional antenna that delivers signal in a circular pattern around the antenna.

If you decide to position the Base Unit on or near an outside wall, we recommend purchasing a Directional Base Unit Antenna (*Page viii*) to focus the signal in the direction of your choice.

The Base Unit can be mounted either directly on a wall or placed on a flat surface (e.g., a bookshelf, desk, end table, etc.). The Base Unit performs best when located at least 4 feet above the floor or approximately the height of a cell phone when it is typically in use (avoid placing the Base Unit on the floor).

For best results, avoid placing the Base Unit antenna within 2 feet of other cords, metal objects or other wireless devices such as wireless routers or wireless access points.

Confirm That Your zBoost® is Working Properly

Perform the following steps to confirm that the unit is now working properly:

1. Unplug the Base Unit power cord.
2. Turn on your cell phone and check the signal meter.
3. Plug the power cord into the Base Unit.
4. Hold your cell phone about 5 feet from the Base Unit and then turn it on. Wait up to 1 minute for the cell phone to register the signal coming from the Base Unit.
5. If the signal meter shows improvement, your zBoost® unit is working properly.

Note

Cell phone signal bars are approximate and vary from phone to phone. The number of bars can fluctuate widely, depending on the location of the phone, the position or angle of the phone, weather, etc. Most cell phone signal meters update every 6 to 10 seconds. An increase of only one bar typically indicates a 4x to 10x signal increase.

THE BEST INDICATOR OF SIGNAL STRENGTH IS THE ABILITY TO RELIABLY PLACE AND RECEIVE CALLS.

Wall Mounting the Base Unit

The Base Unit can also be easily mounted to a wall using the included mounting bracket hardware. The Base Unit should be a minimum distance of 4-5 feet above the floor. Perform the following steps to mount the Base Unit to a wall:

1. Remove the mounting bracket from the Base Unit by slightly spreading the tabs outward from the base unit as illustrated in figure 10.
2. Fasten the mounting bracket to the wall using the included wall/ceiling anchors.
3. Snap the Base Unit into the mounting bracket.

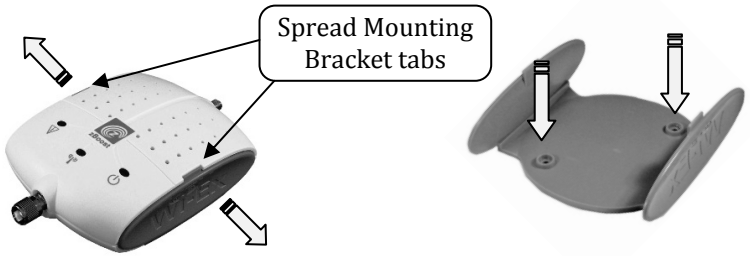


Figure 10: Wall Mounting the Base Unit

Improving Your Coverage Area

When your zBoost® system is in place and fully connected, you should walk throughout the room and see that you are able to reliably place calls.

Remember, coverage varies based on outdoor signal level, building construction, and antenna placement. Coverage in adjoining rooms (next to, above, or below) will be reduced due to walls or ceiling/floors.

Should you desire to improve coverage, you may:

- Move the Base Unit and/or adjust the angle of the Base Unit Antenna.
- Move the Signal Antenna to a higher location in your attic or outside.
- Purchase a Signal Antenna Upgrade (*see page viii*).
- Purchase a Base Unit Antenna Upgrade (*see page viii*).

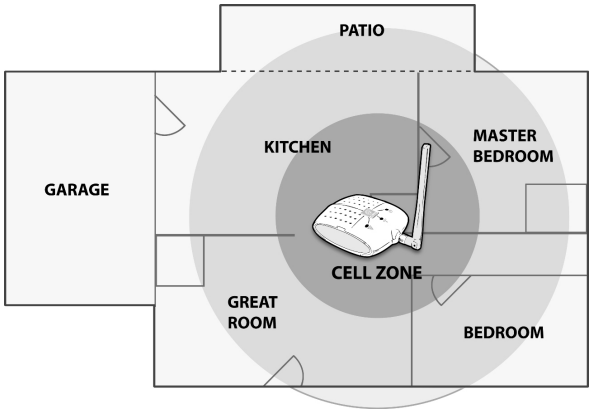
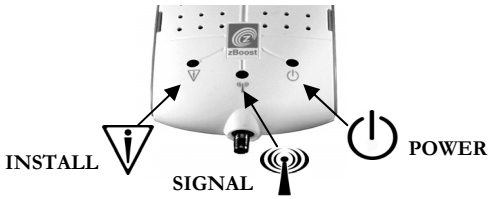


FIGURE 11: Coverage Area

Troubleshooting Your zBoost® System



zBoost® Base Unit Light Indicators

Upon initial power-up of your zBoost®, all lights will flash for approximately 5 seconds. This is a normal condition at power-up.

Install Light

The condition of the Install light reflects the quality of the installation. Following initial power-up, a red (solid or blinking) Install light indicates that the positioning of zBoost® component(s) is reducing the performance of your zBoost® system.

1. It may be that you are receiving an acceptable signal boost; however, repositioning the Signal Antenna and/or Base Unit Antenna to maximize separation between the Signal Antenna and the Base Unit will improve your zBoost® performance. See page 4, *Determine the Location of Signal Antenna and Base Unit Antenna* for more information.
2. A red Install light accompanied with a red Signal light may indicate that the signal received from a cell tower is too strong. To reduce the overpowering signal, relocate the Signal Antenna to an area that receives less signal, which may be indoors or a lower elevation.

Signal Light

The Signal light indicates the condition of communication between a wireless device and its cellular network. Following initial power-up, the Signal light will flash green (800MHz band) when a call is in progress or periodically during normal network communication.

A red Install light accompanied with a red Signal light may indicate that the signal received from a cell tower is too strong. To reduce the overpowering signal, relocate the Signal Antenna to an area that receives less signal, which may be indoors or a lower elevation.

Power Light

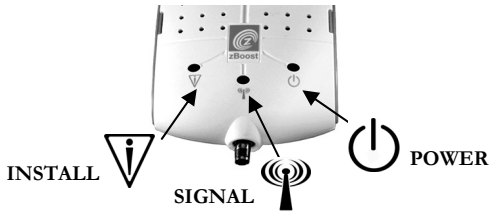
The Power light indicates operation under normal or abnormal conditions. Following initial power-up, the presence of a solid green Power light indicates normal conditions.

While in use, an alternating orange or solid green Power light (with no other negative indicators by the Signal or Install light) reflects normal conditions.

A flashing green Power light (without any other indicators from the Install or Signal light) means that a software error has been detected. Reset by removing power and reconnecting after 10 seconds.

Base Unit Indicator Operation

In most cases, problems with zBoost® can be diagnosed using the Base Unit's LED indicators. Please note that for YX510, GREEN indicates CEL band operation and ORANGE indicates PCS band operation.



Install Light	Signal Light	Power Light	Condition
Cycle RED and GREEN for 3 seconds	Cycle RED and GREEN for 3 seconds	Cycle RED and GREEN for 3 seconds	Normal condition at power up
Off	Off	Solid GREEN	Normal condition at power up
Off	Flashing GREEN	Alternating ORANGE or Solid GREEN	Normal condition indicating that a call is in progress and the system is improving coverage. The Signal Light may also flash periodically with no call in progress indicating normal communication between the cell phone and the cell network.
Off	Off	Flashing GREEN	Base Unit has detected a software error. Remove power for 5 seconds and reconnect power. If condition persists, contact Wi-Ex Customer Service.
Flashing RED or Solid RED	Off	Solid ORANGE or Solid GREEN	Insufficient distance between the Signal Antenna and the Base Unit. Indoor coverage will be reduced. Increase distance between Signal Antenna and Base Unit to achieve maximum performance and coverage. If condition persists after relocating Signal Antenna and/or Base Unit, contact Wi-Ex Customer Support for additional information on set-up.
Solid RED	Solid RED	Solid ORANGE or Solid GREEN	Signal received from a cell tower is too strong. Relocate Signal Antenna to a different location to reduce the overpowering signal. To reduce overpowering signal, relocate the Signal Antenna to an area that receives less signal, which may be an indoor location or a lower elevation. Remove power for 10 seconds and reconnect power after relocating antenna.
Flashing RED	Flashing RED	Flashing ORANGE or Flashing GREEN	System is receiving signals from either the cell phone or the cell tower, which are too strong for proper operation. This may be due to improper set up or operation. Remove power for 10 seconds and reconnect power to reset system. If the error persists, contact Wi-Ex Customer Service for additional information or set-up assistance.

For more troubleshooting tips, visit **www.Wi-Ex.com**

YX510-PCS-CEL Technical Specifications (Dual Band Unit)

Frequency	824 - 894 MHz 1850 - 1990 MHz
Networks:	CDMA, GSM, TDMA, GPRS, EDGE, EVDO, HSPA
Total Signal Gain:	56 dB CEL (Adaptive) CEL 58 dB (Adaptive) PCS
Signal Antenna Gain:	2dBi Colinear; F-type female CEL 3.5 dBi Colinear; F-type female PCS
Base Unit Antenna Gain:	0dBi whip; TNC male
Cable Loss:	3.3dB (50 feet of 75Ω, 3000 MHz RG-6) CEL 6dB (50 feet of 75Ω, 3000 MHz RG-6) PCS
RF Output Power:	½ Watt EiRP (with included antenna) CEL ¼ Watt EiRP (with included antenna) PCS
Base Unit Weight:	15 oz.
Base Unit Size:	5" x 7" x 2"
AC Power Input:	100 – 240 VAC, 47 – 63Hz
DC Power Output:	3.6 VDC, 2.0 A
Operating Conditions:	Indoor use only 5° to 40°C (40° to 105°F)
Coverage (open areas):	4-5 signal bars at roof antenna; 60' diameter at 3-4 bars inside; 2500 sq. ft. circle
FCC ID:	SO4YX510, SO4YX510-PCS, SO4YX510-CEL
Industry Canada ID:	5544A-YX510, 5544A-YX510PCS, 5544A-YX510CEL
Patents pending	

YX500-CEL Technical Specifications

Frequency	824 – 894 MHz
Networks:	CDMA, GSM, TDMA, GPRS, EDGE, EVDO, HSPA
Max Signal Gain:	56dB (adaptive)
Signal Antenna Gain:	2dBi Colinear; F-type female
Base Unit Antenna Gain:	0dBi whip; TNC male
Cable Loss:	3.3dB (50 feet of 75Ω, 3000 MHz RG-6)
RF Output Power:	½ Watt EiRP (with included antenna)
Base Unit Weight:	12 oz.
Base Unit Size:	5" x 7" x 2"
AC Power Input:	100 – 120 VAC 60Hz
DC Power Output:	5VDC, 2.0A
Operating Conditions:	Indoor use only 5° to 40°C (40° to 105°F)
Coverage (open areas):	4-5 signal bars at roof antenna; 60' diameter at 3-4 bars inside; 2500 sq. ft. circle
FCC ID:	SO4YX500-CEL
Industry Canada ID:	5544A-YX500CEL
Patents pending	

YX500-PCS Technical Specifications

Frequency	1850 – 1990 MHz (PCS only)
Networks:	CDMA, GSM, TDMA, GPRS, EDGE, EVDO, HSPA
Total Signal Gain:	58dB (adaptive)
Signal Antenna Gain:	3.5dBi Colinear; F-type female
Base Unit Antenna Gain:	0dBi whip; TNC male
Cable Loss:	6dB (50 feet of 75Ω, 3000 MHz RG-6)
RF Output Power:	¼ Watt EiRP (with included antenna)
Base Unit Weight:	12 oz.
Base Unit Size:	5" x 7" x 2"
AC Power Input:	100 – 120 VAC 60Hz
DC Power Output:	5 VDC, 2.0A
Operating Conditions:	Indoor use only 5° to 40°C (40° to 105°F)
Coverage (open areas):	4-5 signal bars at roof antenna; 60' diameter at 3-4 bars inside; 2500 sq. ft. circle
FCC ID:	SO4YX500-PCS
Industry Canada ID:	5544A-YX500PCS
Patents pending	

Frequently Asked Questions

For more FAQ's, visit our website: www.Wi-Ex.com

What can I expect my cell phone signal range and strength to be inside my home or office?

The closer you are to the base, the stronger the signal. This will vary with different conditions. Some of the conditions that will affect the improved coverage area are signal strength outdoors, the type of building materials in the home, the placement of the unit and the antenna's proximity to cellular towers.

Your expectations should be that your indoor coverage will be improved. You will be able to make calls where you couldn't before. The degree of improvement will depend upon many factors. The intent of zBoost® products are to bring outside coverage inside. If you want an even stronger signal, consider a more powerful signal antenna or an internal directional antenna, available for purchase at www.wi-ex.com.

Will the zBoost® YX500-PCS or YX500-CEL unit work with any wireless service?

No, while the zBoost® YX510 Dual Band will work with any US carrier, except Nextel, the zBoost® single band units (YX500-PCS and YX500-CEL) will work only within their respective frequency band.

zBoost® YX500-PCS frequency range is 1850 – 1990 MHz and zBoost® YX500-CEL frequency range is 824 – 894 MHz. Since many carriers now use both frequencies, we recommend zBoost® YX510 Dual Band to support both Cellular and PCS frequency ranges simultaneously.

At this time our zBoost® YX500/510 Series models do not work with the iDEN (Nextel) service. To determine what kind of service you have please visit **www.wirelessadvisor.com** enter your zip code and locate your service provider.

Where should I place my zBoost® Base Unit to get the best coverage?

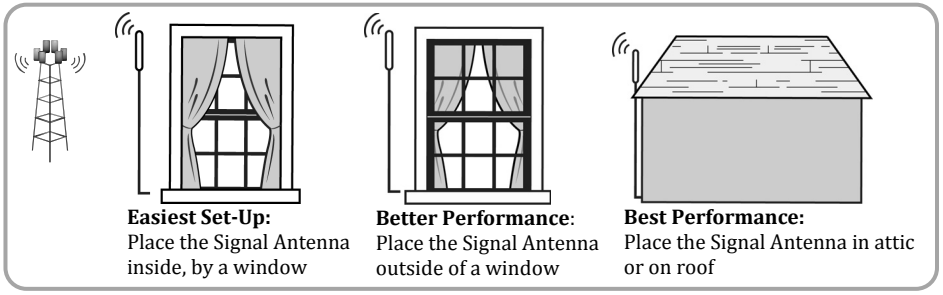
You should place your base unit where you need coverage the most. The base unit is the component that amplifies the signal inside. The coverage is improved in a circular manner from the base unit. The further you are away from the base unit, the weaker the signal. The base unit could be placed in the family room, the basement, an office, a bedroom, a home office or a any other centralized location.

Note: if you place the Signal Antenna too close to the Base Unit, the system will shut down. Both the Install (▽) and Signal (📶) lights will blink red. This is a normal condition for this scenario. It just means that you need to ensure that you have sufficient distance between the 2 antennas; otherwise, it will detect feedback or noise and automatically shut down. Lack of sufficient vertical separation is usually the cause.

Where is the best place to put my Wi-Ex Signal Antenna?

The Wi-Ex signal antenna should be placed at the highest point in or on your house in order to receive the strongest signal. This location could be in the attic or on the roof. The placement of the Signal Antenna is very important. It is best to place this in an un-obstructed area. If you position it outside, place it above the roofline vertically, or, any other area round your home that has the greatest signal strength.

Note: if you place the Signal Antenna too close to the Base Unit, the system will shut down (both the Install (▽) and Signal (📶) lights will blink red). This is a normal condition for this scenario. It means that you need to ensure that you have proper distance/separation between the two antennas; otherwise, it will detect feedback or noise and will automatically shut down.



Easiest Set-Up: Place the Signal Antenna inside, by a window

Better Performance: Place the Signal Antenna outside of a window

Best Performance: Place the Signal Antenna in attic or on roof

Is a cellular phone signal booster the same as a wireless router; will it help my WiFi signal?

The Wi-Ex unit will not help your WiFi service. This unit is designed to work with wireless PCS and Cellular phones and devices. The WIFI in your home or office operates on a different frequency.

Is your product available for international use?

Our devices currently operate in the in the 800 and 1900MHz frequencies. Some countries outside the US use the same frequencies and the current models are compatible with these networks. Check the frequencies for a particular country for compatibility. We are currently developing zBoost® products for international frequencies. Check our website **www.Wi-Ex.com** for product availability.

Why isn't my cell phone indicating more signal with more bars?

You will not observe that gain on your signal meter because of the signal spreading out from the antenna. If your phone has a dB meter, 3dB is a significant increase of 2x, 6dB is 4x, and 10dB is 10x. On a four bar phone, one "bar" equals about 10dB.
The increase in signal you will see depends upon:

- The level of signal at the Signal antenna (outdoor)
- The care of the antenna placement (few feet away from metal, adequate antenna separation [15-20 feet vertical recommended])
- The signal already present inside (related to building losses)
- The distance of your phone/device from the Base Unit (signal spreads or diminishes rapidly with distance.)

How do I know if I need a grounding kit and how do I install it?

Generally, we recommend the use of grounding kits in areas where the antenna is placed outdoors at a high point above ground.
The recommended method of grounding your antenna is by attaching the grounding wire (provided with the grounding kit) to a cold water pipe or a ground rod (*see page viii) for grounding kit*).

My Signal light is continually blinking

This is completely normal and indicates that your unit is functioning within normal parameters. In order for the Signal light (📶) to flash, the Base Unit has to receive a signal from any phone. Phones will periodically communicate with the network. The Base Unit is detecting that signal. The frequency and duration of the update will vary from phone to phone. If this occurs when all cellular phones are off, make sure your unit is at least 3 ft away from other wireless devices (i.e. portable home phones, wireless routers, etc.). If the Signal light (📶) continues to blink, call Wi-Ex technical support.

Can I use my existing RG-59 cable to set up my unit?

Most likely, the cable that is currently in the wall is the type that has been commonly used in cable TV applications for the last 30 years. zBoost® products use RG-6 because it provides lower signal loss. RG-59 Coax has a higher signal loss and will significantly reduce the performance of your zBoost® product. In all cases, the RG-6 coax must be a dedicated run between the antenna and the Base Unit and may not be shared with another device.

There are usually several cell phones in use at one time in my home, will your product boost all of our signals simultaneously?

The zBoost® YX500/510 Series is designed to cover multiple signals simultaneously and will allow multiple users to operate at the same time.

zBoost® Warranty Information

Limited 1 Year Warranty
Register your product at www.Wi-Ex .com

Wi-Ex® warrants every Wi-Ex® product to be free from defects in material and workmanship under normal use for the warranty period of one year.

Who Is Covered?

You must have proof of purchase to receive warranty service. A sales receipt or other documentation showing the product purchased and the purchase date is considered proof of purchase. This limited warranty extends only to the original consumer purchaser or any person receiving the product as a gift from the original consumer purchaser and to no other purchaser or transferee. This warranty does NOT extend to commercial users.

What is Covered?

Warranty coverage begins the day you purchase the product. For one year from the original date, the Wi-Ex® Cell Phone Signal Booster will be repaired or replaced with a new, repaired, refurbished or comparable product (whichever is deemed necessary by Wi-Ex®) if it becomes defective or inoperative. The exchange will be made without charge to you for parts and labor. You will be responsible for the cost of shipping to the location designated by Wi-Ex®. If Wi-Ex® cannot reasonably repair or replace the unit then Wi-Ex® may, at its sole discretion, refund the price you paid for the product or the price of the unit.

All products, including replacement products, are covered only for the original warranty period. When the warranty on the original product expires, the warranty on the replacement product also expires.

What is Excluded?

Your warranty does NOT cover:

- Labor charges for set up of the unit.
- Product replacement because of misuse, accident, lightning damage, unauthorized repair or other cause not within the control of Wi-Ex®.
- Incidental or consequential damages resulting from the product. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.
- Any modifications or other changes to the product, including but not limited to software or hardware modifications in any way other than as expressly authorized by Wi-Ex® will void this limited warranty.
- Product that has been modified or adapted to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.

Make sure you keep…

Please keep your sales receipt or other document showing proof of purchase. Attach it to this User Guide and keep both nearby. Also, keep the original box and packing material in case you need to return your product.

Before requesting repair service…

PLEASE CHECK THE TROUBLESHOOTING SECTION OF THE GUIDE. This may save you a call.

To get warranty service…

Warranty service will be provided by Wi-Ex®. If you believe you need service for your unit, contact Wi-Ex® at 1-800-871-1612 or support@wi-ex.com. A representative will go through a diagnostic checklist with you. If it is determined that the product needs to be returned for service or exchanged, you will receive a return merchandise authorization (RMA) number. The representative will give you complete shipping details.

To get out of warranty service…

To obtain out of warranty service, contact Wi-Ex® at 1-800-871-1612 or support@wi-ex.com for information on the possibility of any costs for repair or replacement of out-of-warranty products.

Reminder

Record the model and serial number found on the product below:

Model #: _____

Serial #: _____

Purchase Date: _____